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		Wu et al. "Ori	gin of Nan	PATENT LITER	TURE DOCUME	RTS		·		
7	AA	Wu et al., "Ori	grn or Nan	omechanical	Cantilever !	Motion	Genera	ted		
ľ		rom Biomolecular Interactions," Proceedings of the National cademy of Science, 98(4), 2001, pp. 1560-1564.								
		Tip of 01 3016	nce, 98(4)	, 2001, pp.	1560-1564.					
- 1	AB	Lin et al. "Su	rtace Stre	ss Curves for	r Gold, " J.	Elect	cochem.	Soc.,		
- 1	AD	123, August 197	e, pp. 114.	5-1151.				·		
		Too Military								
	Lee, "Microactuation by Continuous Electrowetting and									
	20	Thee, microactu	ation by Co	ontinuous Ele	ectrowetting	and E	Clectro	wetting		
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		of California,	Los Angeles	2000, pp.	l," Disserta 1~173	tion,	Univer	sity		
		of California, Lundback et al.	Los Angeles , "Lipid Bi	2000, pp.	1," Disserta 1-173.	tion,	Univer	sity		
	AD	of California, Lundbaek et al. Stress, and Asse	Los Angeles , "Lipid Bi embly of Gr	2000, pp.	1," Disserta 1-173.	tion,	Univer	sity		
-	AD	of California, Lundback et al.	Los Angeles , "Lipid Bi embly of Gr	2000, pp.	1," Disserta 1-173.	tion,	Univer	sity		
	AD	of California, Lundbaek et al. Stress, and Asse	Los Angeles , "Lipid Bi embly of Gr	2000, pp.	1," Disserta 1-173.	tion,	Univer	sity		
	AD	of California, Lundbaek et al. Stress, and Asse	Los Angeles , "Lipid Bi embly of Gr	2000, pp.	1," Disserta 1-173.	tion,	Univer	sity		
	AD	of California, Lundbaek et al. Stress, and Asse	Los Angeles , "Lipid Bi embly of Gr	2000, pp.	1," Disserta 1-173.	tion,	Univer	sity		
	AD	of California, Lundbaek et al. Stress, and Asse 1997, pp. 5695-	Los Angeles, "Lipid Biembly of Gr	2000, pp. ilayer Electromicidin Cha	ostatic Ene	rgy, C	Univer	sity		
	AD	of California, Lundbaek et al. Stress, and Asse 1997, pp. 5695-	Los Angeles, "Lipid Biembly of Gr	2000, pp. ilayer Electromicidin Cha	ostatic Ene	rgy, C	Univer	sity		
	AD	of California, Lundbaek et al. Stress, and Asse	Los Angeles, "Lipid Biembly of Gr	2000, pp.	1," Disserta 1-173.	rgy, C	Univer	sity		
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	AD	of California, Lundbaek et al. Stress, and Asse 1997, pp. 5695-	Los Angeles, "Lipid Biembly of Gr	2000, pp. ilayer Electromicidin Cha	ostatic Ene	rgy, C	Univer	sity		
MINED	AD	of California, Lundbaek et al. Stress, and Asse 1997, pp. 5695- Duplicate	Los Angeles, "Lipid Biembly of Grond.	e, 2000, pp. ilayer Electr camicidin Cha	ostatic Ene	rgy, C	Univer	sity		
MINER	AD	of California, Lundbaek et al. Stress, and Asse 1997, pp. 5695-	Los Angeles, "Lipid Biembly of Grond.	2000, pp. ilayer Electromicidin Cha	ostatic Ene	rgy, C	Univer	sity		

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		Wu et al., "Origin of Nanomechanical Cantilever Motion Generated							
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	<u> </u>	Academy of Science, 98(4), 2001, pp. 1560-1564. Lin et al., "Surface Stress Curves for Gold," J. Electrochem. Soc.,							
1	AB	1			J. Elect	rochem	. Soc.,		
		123, August 1976, pp. 1145-1151.							
	 	Lee, "Microac	tuation by (Continuous Electrowet	ting and	Electr	owetting:		
	AC		-	Demonstration," Diss					
		of California	, Los Angele	es, 2000, pp. 1-173.					
		Lundbaek et a	•			_			
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	T	FRITZ et al "		ng Biomolecular Recogni		ito		
do	AA	1		Vol. 288, 2000, pp. 31				
CBF		,		, tall all, dist, pp.				
	 	WU et al., "Bio	assav of r	prostate-specific antig	en (PSA) usino	T	
1	AB	1		Biotechnology, Vol. 1				
		860.	,		-,			
	1		al., "Gluc	cose biosensing using a	n enzym	ne-coate	ed	
	AC	†		d Physics Letters, 81(2	_			
		387.						
		Hagan et al., "	'Nanomechar	nical Forces Generated	by Surf	ace Gr	afted	
	AD	DNA," Journal o	of Physical	Chmistry, B 106, 2002	, pp. 1	0163-1	0173.	
		Thaysen et al.,	"Su-8 Bas	sed Piezoresistive Mech	anical	nical Sensor,"		
1.	AE	AE IEEE Workshop on MEMS, 2002, pp. 320-323.						
							 	
		Lin et al., "Surface Stress Curves for Gold," J. Electrochem.						
	AF	Soc., 123, 1976	, abstract	c only.				
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	Lee et al., "SPR Imaging Measurements of 1-D and 2-D DNA AG Microarrays Created from Microfluidic Channels on Gold Thin							
	AG	1						
	 			73, No. 22, 2001, pp.			echanical	
- 1	АН	į.		Detection of Nanoscale				
	l vu	ł		ystems, Vol. 11, No. 6,				
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CBM A	films of metals 393, 1998, pp.	"Spontaneous supported o 146-149.	s formation of order on an elastomeric	ered struc polymer,"	Nature	,		
CB91	films of metals 393, 1998, pp. Hansen et al.,	"Spontaneous supported o 146-149. "Cantilever-	s formation of order on an elastomeric p -Based Optical Def	ered struction As	Nature	, 		
CBM A	films of metals 393, 1998, pp. Hansen et al., Discrimination	"Spontaneous supported of 146-149. "Cantilever- of DNA Singl	s formation of order on an elastomeric p -Based Optical Def Le-Nucleotide Misma	ered struction As	Nature	, 		
CB91	films of metals 393, 1998, pp. Hansen et al., Discrimination 73(7), 2001, pp	"Spontaneous supported of 146-149. "Cantilever- of DNA Singl . 1567-1571.	s formation of order on an elastomeric pro- Based Optical Defi Le-Nucleotide Misma	ered struction As atches," A	Nature	r nem.,		
AH	films of metals 393, 1998, pp. Hansen et al., Discrimination 73(7), 2001, pp Thaysen et al.,	"Spontaneous supported of 146-149. "Cantileverof DNA Single. 1567-1571."	s formation of order on an elastomeric p -Based Optical Defi le-Nucleotide Misma c-based bio-chemica	ered struction As atches," A	say for	r nem.,		
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U.S. PATENT DOCUMENTS

Examiner Initial*		Document Number	Date	Name	Class	Sub Class	Filing Date
CBM	AA	6 050 138	Apr-00	Lynch et al.	73	150A	
	AB	6 201 980	Mar-01	Darrow et al.	600	347	
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